

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An optimization process for radio resources allocated to an MBMS service (Multimedia Broadcast/Multicast Service) broadcast by a source to a group of mobile terminals located in a limited geographic zone that is covered by at least one cellular telecommunication network, comprising:

counting the mobile terminals present in said geographic zone,

defining a first criterion representing a minimum level of reception quality by the mobile terminals of the service broadcast in said geographic zone,

defining a second criterion representing a distance between the broadcast source and the mobile terminals for using a shared channel in said geographic zone and for which a reception of the broadcast service is optimal;

establishing a signalization connection between the cellular telecommunication network and mobile terminals located in a broadcast zone that fulfill the first and second criteria;
and

transmitting the MBMS service to said mobile terminals;

wherein activation and synchronization of said mobile terminals in said shared channel is carried out by said mobile terminals.

2. (previously presented): A process according to claim 1, wherein said signalization connection is used to count the mobile terminals of a broadcast zone.

3. (previously presented): The process according to claim 2, wherein the process further comprises:

fixing a percentage of mobile terminals that should receive the MBMS service;

broadcasting signals having a determined power level;

determining the percentage of mobile terminals that respond to signals that have been broadcast;

as long as a fixed percentage of mobile terminals has not been reached, reducing an emission power level; and

if the fixed percentage of mobile terminals has been reached, broadcasting the MBMS service at the emission power level that has been reached.

4. (previously presented): The process according to anyone of claims 1 to 3, wherein said cellular telecommunication network is a UMTS network.

5. (previously presented): The process according to claim 4, wherein the first criterion that represents the minimum level of reception quality is determined according to a minimum level of received signal code power (RSCP) measured by code indicated by said cellular telecommunication network.

6. (previously presented): The process according to claim 4, wherein the first criterion that represents the minimum level of reception quality is determined according to a signal-to-noise ratio E_c/N_0 that is indicated by said cellular telecommunication network.

7. (previously presented): The process according to anyone of claims 1 to 3, wherein said cellular telecommunication network is a GSM/GPRS network.

8. (previously presented): The process according to claim 7, wherein the first criterion that represents the minimum level of reception quality is determined according to a parameter (RX lev GSM).

9. (currently amended): A mobile terminal aimed at receiving an MBMS service broadcast by a source in a limited geographic zone that is covered by at least one cellular telecommunication network, comprising:

means for establishing connections with said cellular telecommunication network
in the cases:

in which a reception quality level is below a minimum level defined by said cellular telecommunication network for said zone; and

in which a distance between the mobile terminal and the broadcast source for using a shared channel in said geographic zone is greater than a distance established in advance by said cellular telecommunication network-;

wherein activation and synchronization of said mobile terminal in said shared
channel is carried out by said mobile terminal.

10. (previously presented): The mobile terminal according to claim 9, wherein the mobile terminal establishes a connection with said cellular telecommunication network when a signal-to-noise E_c/N_0 is lower than a level that has been set in advance by said cellular telecommunication network, or when a minimum level of received signal code power RSCP is lower than a preset value.